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A
S Y L L A B U S
O F
L E C T U R E S

On the THEORY and PRACTICE of
M I D W I F E R Y:

I N C L U D I N G

The *Pathology* or general Doctrine of the *acute and chronical Diseases incident to Women and Children*, with their *Treatment and Cure*.

* * For the clearer Demonstration of Operative Midwifery (whether simply by the Hand, or the *Application of Instruments*) the several Methods of assisting both in *laborious* and *preternatural Labours*, will not only be described according to the most approved modern Practice, but likewise distinctly shewn by an *artificial Representation of each difficult Case*, upon *Machines of a new Construction*.

The Whole will be illustrated by such *Anatomical Preparations* as are applicable to each Lecture; together with various Observations, extraordinary Cases, and necessary Cautions; but particularly, by *real Labours*.

By J O H N L E A K E, M. D.

Member of the Royal College of Physicians, LONDON,

and PHYSICIAN to the

WESTMINSTER LYING-IN HOSPITAL,

At his House in *Craven Street* in the *Strand*.

LONDON, A. D. 1776.

P R O P O S A L S.

THE Students who attend these Lectures, for their more expeditious and effectual improvement, and with a view to reduce the *Theory of Midwifery to real Practice*, will, when duly qualified, be admitted Pupils at the *Westminster Lying-in Hospital*, where they will deliver the patients in their turn, and afterwards receive a *proper Certificate* of their qualification and attendance.

The expence of attending the first Course - - - 4 Guineas.
And for every future Course - - - - - 2 Guineas.

Ten Guinea } Every Gentleman paying *ten Guineas* at the first Course, shall be entitled
Pupils. } to attend every future Course for the space of *one Year*; and also be *admitted*
a *Pupil at the Hospital for Six Months*; where he will have frequent opportunities of *Extensive Practice*, under Dr. Leake's Direction, and also the advantage of seeing the *Treatment and Manner of prescribing for the various Disorders incident to Child-bearing Women and Infants*;---a Branch of Science essentially necessary to all those who intend to practise Midwifery.---These pupils will likewise have the privilege of being present at *laborious and preternatural Labours*, or whenever there is *Danger or Difficulty*; and to whom the Nature of the case, and the Operation it requires, will be distinctly shewn, and clearly explained, as well as the *Medicinal Treatment* afterwards requisite for the patient's Recovery. They will also have the liberty of taking down such *remarkable Cases* as occur during the time of their attendance, with the *Clinical Observations* applicable to each.

Twenty Guinea } Gentlemen who are *perpetual Pupils*, will have many *extra Advantages*,
Pupils. } the particulars of which may be known by further enquiry of Dr. Leake.

Pupils having } Such Gentlemen as want sufficient Time to wait for Instruction, &c. in
Extra Privileges. } the usual Manner, will be allowed an Additional Number of Labours, with other Advantages tending to qualify them the sooner; on paying in proportion for such *extra Privileges*.

Female } *Women* will be privately instructed, and duly qualified for their own prac-
Pupils. } tice, by being allowed to reside in the Hospital.

Before the establishment of *this Hospital*, in which (though yet in its infancy) upwards of *Twelve Hundred Women* have already been delivered; it was extremely disagreeable to seek after Labours at a great distance, among the very *lowest class of people*, in Alleys and remote parts of the Town, where a Number of Pupils were obliged to attend the same Patient:---From the indecency of this method, which still prevails elsewhere, but at which the very *Hottentots* would blush; the Gentlemen were often exposed to *Insults*, and for all their Trouble, could acquire *very little Practical Knowledge*; because, where so many were present at the Labour, besides the confusion it occasioned, only one of them could properly be said to deliver the Patient; and as they

they only touched her by turns, not one of the whole Number could exactly know the natural Progress of the Labour from beginning to end: On the contrary, *every Pupil*, after his Introduction at *this Hospital*, is called *singly* to the Labours, and attends her from first to last, without any other person's interfering, and with the same *Decorum* as if she was a *private Patient* of his own.

* * * An additional Number of Patients will now be admitted into *this Hospital*, by Order of the Governors, in consequence of many new Subscribers, Benefactions, and a second Legacy, received in the year 1773; and will yearly so continue to increase in proportion to the Fund of the Charity.

The Advantage of attending a *Public Lying-in Hospital* is obvious; but, as it is an *unusual Privilege*, and not hitherto universally known, it was necessary to mention Particulars, that every one intending to study *Midwifery*, may judge for himself, without being influenced by future Misrepresentation.---Besides, it is presumed, that a *Certificate* of Attendance at a *Public Hospital*, will carry with it more Credit and Consequence, than that of being called to *casual Labours* only.

It is here necessary to mention a very capital Inconvenience which many Gentlemen inadvertently fall into, viz. *That of deferring their Instructions in this Art, till within a few Months of their leaving London*: whereas it appears most eligible and proper for them to attend *Lectures in Midwifery*, together with those of *Anatomy*; as these two Sciences mutually illustrate and explain each other.

The first Winter's Course of Lectures will begin the first *Monday* in *October*, at Five in the Evening, and regularly continue for *One Month*, from time to time, throughout the year, as advertised in the *public Papers*; and as the *Pupils* are introduced at the Hospital in rotation, according to the Date of their Commencement at Lectures; *such as enter their Names early*, will be allowed to attend the Labours so much the sooner on that Account; and to whom a *Syllabus of the Lectures* will be given at the Time of Commencement; and, for the future, *to such only as are Pupils*.

Further Particulars may be known at the Doctor's House, in Craven Street, or at the WESTMINSTER LYING-IN HOSPITAL, near the Bridge; which is commodiously situated for the Attendance of the *Pupils*, being nearly in a middle Space between *St. Thomas's*, *St. George's*, and *St. Bartholomew's Hospitals*.

Of

Of the Intent and real Advantage of an *Apparatus* in demonstrating the Practical Part of *Midwifery*.

IT is here necessary to say something on the Design of *Machinery*, or that *Apparatus* which is intended as an *artificial Substitute* for the real Bodies of *Women* and *Children*, on which to teach the Art of *Midwifery*.

In the *Practical Part of Midwifery*, there is a Kind of *Dexterity* required, which can never be taught by Description;---nothing but Practice itself can adapt the Hand of the Pupil to the easy and judicious Performance of the several Operations in this Art.

It is true, that before any one can be deemed a Proficient in *Midwifery*, he must have frequent Opportunities of *real Practice*; but living Bodies are very improper Subjects for initiating Pupils in the Operative Part of this Art:---How then shall they begin to practise?---Not on real Subjects, but upon *artificial Bodies*, so *mechanically* and *naturally constructed*, as nearly to correspond with the several Parts concerned in *Parturition*; but as *Machines* badly constructed by *Mechanics* or *Artificers*, who know nothing of their real Use, are so far from being serviceable, that they do much Harm, by misinforming the Judgment of the Student, and giving him a false Idea of Nature, both in the *Touch*, *Figure*, and *Disposition* of the several Parts; I was induced to bestow no small Labour and Expence on that *Apparatus*, upon which I now artificially demonstrate the *several difficult Operations* of *Midwifery*; having for many Years been constantly making *Alterations* and *Improvements* in it, as upon *Trial* I discovered its Defects.

By the Use of *this Apparatus*, each *difficult Case* is reduced to a *Demonstration*, which will afford the Student such solid Introductory Knowledge as cannot be forgot;---For instance, he will become acquainted with the *Position* most conducive to a speedy Delivery, and will acquire a certain Degree of *Dexterity* and *Skill* in the Application of the *different Instruments* used in *difficult Labours*; but particularly, in *preternatural Cases*, he will learn the Method of *turning the Child* with more Ease to himself and Safety to the Mother, by Means of an *artificial Uterus* of a *new Construction*, which contracts uniformly on the Body of the Infant, from the *Fundus* to the *Cervix Uteri*, and acts on the Hand of the Operator, with a greater or less Degree of Force as the Case requires, so as to give him the same Ideas of Difficulty as *really present themselves in Nature*; and in a *Manner not hitherto demonstrated by any other Apparatus*.

* * * Such Gentlemen as have already attended Lectures, and are desirous of further Improvement in the *practical Part of Midwifery* (on producing a *Certificate*) will be allowed to attend the *Hospital* after the *first Course*.

The *Apparatus* may be seen at Dr. Leake's, in *Craven Street* in the *Strand*, *London*, by such Gentlemen as propose to become Pupils.



An ACCOUNT of the *Westminster New Lying-in Hospital*, instituted A. D. 1765, and supported by Voluntary Subscription.

The Right Honourable Earl PERCY, President.

Sir Harbord Harbord, Bart.	} Vice-Presidents.	{ Major General Desaguliers,	
Sir Joseph Mawbey, Bart.			Major General Boyd,
Lieut. General Williamson,			Crisp Molineux, Esq;

IN the Year 1765, Dr. JOHN LEAKE, of *Craven Street* in the *Strand* (of the *College of Physicians, London*) purchased a Piece of Ground on a Building Lease on the *Surry Side* of *Westminster Bridge*, and afterwards presented to the Public the *Original Plan* for the Institution of this Hospital:---As soon as the *Hospital* was built, by Public Subscription, on the above Ground, he voluntarily, and without any Consideration whatever, assigned over to six *Trustees* chosen by the Governors at a *General Meeting*, all his Right and Claim to the above *Premises*, in Favour of this Charity; otherwise, in case it had not continued to subsist, the *Building* raised on his Ground would have legally become his own Property.

Being honoured with the Patronage of the Right Hon. Earl PERCY, together with several Gentlemen of *Rank* and *Distinction*, and being also favoured with the Assistance of his *Friends* and the Public, which he is desirous most respectfully to acknowledge; he at last had the Satisfaction of seeing this charitable Design carried into Execution, after the repeated Exertion of his utmost Endeavours to that End.

The Institution of this Charity is principally designed for the Relief of those Chidbearing Women who are the Wives of *poor industrious Tradesmen*

or *distressed Housekeepers*, who, either from *unavoidable Misfortunes*, or the Expence of maintaining large Families, are reduced to real Want; and also for the immediate Relief of indigent *Soldiers and Sailors' Wives*; but it being represented to the Governors of this Hospital, that great *Hardships* do arise to poor *unmarried Women with Child*, who on that Account are excluded elsewhere; in order to remove such Inconveniences, and to render this Charity more *extensively useful*, they have unanimously resolved, at a *General Meeting*, not to require any *Certificates of Marriage* towards the Admission of such Women, as are otherwise properly recommended as *Objects of real Want*.--- But least the Perversion of this Design should tend to *encourage Licentiousness*, they have thought proper to limit this Indulgence to the *first Time only*, in which such Women have been unwarily seduced from the Paths of Virtue. --- This Resolution, being founded in *Humanity*, the Governors have, no doubt will meet with the universal Approbation of the Public; as several melancholy Instances have occurred, where *unfortunate Women*, when shut out from all *Shelter*,---destitute of *Hope, Money, or Friends*,---and wounded with *Shame and Contrition* for their past Indiscretion, have been driven to *Despair* by such complicated Misery, and were tempted to *destroy themselves* or to *murder their Infants*!

This Charity, from its *general Utility*, having hitherto met with great Encouragement from the Public, it is hoped, by the *Governors*, that the *Nobility* and Others, and also that Gentlemen of Rank in the *Army and Navy*, will follow the laudable Example of *those*, by whose generous Munificence the *Building* was raised; being *One Hundred Feet* in Front, and large enough to contain *Seventy Beds*.

As no one is so *rich*, but he may become *poor*, nor any so *happy*, as to exclude the Possibility of being miserable; it is earnestly hoped, that all such as have been successful in the World, and live in Affluence and Plenty, will not withhold their Assistance from the *Poor and Needy*; but cheerfully spare them a little, as a *grateful Acknowledgement to Providence for their own happier Fate*.

Dr. LEAKE attends in all *Cases of Danger or Difficulty*; and in order to extend the Benefits of this Charity (at the Request of the Governors) he will also give *Advice* every TUESDAY at Twelve o'Clock, at the said Hospital, to such *Poor* as shall then present themselves to the Board as Out-Patients, for Relief in the *several Disorders* incident to *Women and Children*.

SUBSCRIPTIONS and DONATIONS are received at Mess. DRUMMONDS and Co. Bankers, at *Charing Cross*, or by the WEEKLY BOARD, at the *Hospital*, near *Westminster Bridge*.

The Patients are attended by	{	Dr. John Leake, Physician to the Hospital.
	{	Dr. James Ford, Physician Extraordinary.
	{	Dr. Richard Huck, Consulting Physician.
	{	Mr. Lewis Poignand, Surgeon.
	{	Two Visiting Apothecaries, and
	{	A Matron.

S Y L L A B U S
OF THE
L E C T U R E S.

INTRODUCTORY LECTURE.

A N Historical View of the Rise, Progress, and present State of Midwifery; together with the Theory and Practice of the ancient Writers.

A general Account of the Doctrine, Writings, and Improvements of the most eminent *Modern Professors* of Midwifery; particularly, those who now give public Lectures on that Science in different Parts of Europe.

Of the Means most conducive to a perfect Knowledge of the Theory and Practice of Midwifery.

Of the Qualification and Deportment of an *Accoucheur*.

LECTURE

L E C T U R E II.

Anatomy of the Female Pelvis, with a Description of the Form, Situation and Connexion of the several Bones of which it is made up, viz. the Os Sacrum, Coccyx and Offa innominata, with their Ligaments, Cartilages and surrounding Muscles.

The Division of the Offa innominata into their several Bones, viz.

Ilium,
Ischium, &
Pubis.

The Dimensions of a well-formed Pelvis at its Brim and Bottom;---its Extent from Side to Side, and from the posterior to the anterior Part: with its posterior, anterior and lateral Depth.

The Figure of its Cavity, and the Difference between a well-formed and *distorted Pelvis*; also the Marks which distinguish the *Male* from the *Female Pelvis*.

The Causes of a distorted or *Narrow Pelvis*, and its dangerous Consequence to Child-bearing Women.

Of the Shape, Structure, and different Diameters of the Foetal Cranium; with the Advantage of knowing the *relative Proportion of the Infant's Head to the Pelvis*, and how it passes through its Cavity in different Directions.

Remarks on the Membranous Connexion of the Bones which compose the Infant's Skull;---different from the Adult;---and how corresponding with the Intention of Nature in facilitating the Child's Birth.

LECTURE

LECTURE III.

Of the Female Organs of Generation, viz.

Externally the { Pudenda,
Meatus Urinarius,
Clitoris,
& Nymphæ.

Internally the { Hymen,
Vagina,
Os internum,
& Uterus ;
Fallopian Tubes,
Ovaria and Ligaments.

Contiguous Parts, { Vesica Urinaria,
Rectum & Perinæum.

Of the Figure of the Uterus in its Virgin State and after Pregnancy ; and also of the gradual Distention of the Fundus and Cervix Uteri at different Periods of Gestation.

The several Parts will be shewn in *Situ Naturæ*, with *Physiological Observations* on their Structure and Use.

LECTURE IV.

Of the several Disorders incident to the Parts of Generation, and the Method of their Cure, viz.

Of the Prolapsus Vaginæ & Uteri, and Method of treating those Disorders.

The different *Pessaries* invented and recommended for the Relief of the above Complaints, and Manner of their Application.

Stone in the Bladder,---its bad Consequence to Women in Labour.---Painful Symptoms thence arising---how relieved.

Of Ruptures in general, and of a particular Species of Hernia peculiar to Women.

---The imperforated Hymen and Operation necessary for its Cure..

L E C T U R E V.

Of the Menstrual Flux.

The various Hypotheses laid down by Physiologists to account for that extraordinary Phenomenon.

Of the Change produced in the female Constitution, at the Age of Puberty.

The Menfes in their morbid State, viz. when irregular, obstructed, or too large in quantity.

Of the deviating Menfes.

The Cessation of the Menfes, and Disorders from thence arising.

L E C T U R E VI.

Of the *Chlorosis*, *Hysterical Affections*, and *Furor Uterinus*.

Of the *Fluor Albus*; and how distinguished from a *Gonorrhæa virulenta*, from the Menfes decolores, or Discharge of an Ulcer in the Womb; with their several Causes, and *Method of Cure*.

Dropsy of the Ovaria.

Of the cancerous Womb; Schirrous and Cancerous Breast, and of the Effects of *Cicuta*; *Vegeto mineral Water*, and other Medicines in those Disorders.

Of Sterility or Barrenness, with its several Causes, as relative to both Sexes; and of the Means most conducive to remedy such Defects.

LECTURE

L E C T U R E VII.

Of Generation.

The ancient and modern Doctrine of Conception, and the various Opinions advanced by different Authors on that Subject.

Of the Genitura of the Ancients.

The Oviparous System of *Harvey*, *Malpighius* and *De Graaf*;---Animal-cular System of *Hammius*, *Leeuwenhoek* and *Hartfoker*, and the corpuscular organical System of *M. Buffon*.

Of the *impregnated Ovum*, and its Descent into the Uterus by the Fallopian Tube; with the progressive Order in which the several Parts of the Embryo unfold themselves in Magnitude and Figure, from Conception to the Time of Birth.

Viviparous and Oviparous Animals,---their Analogy considered in the Manner of their Production.

Æquivocal Generation;---exploded by the Experiments of *Redi*.

Of *Twins*, Superfœtation, false Conceptions, and Moles.

---Extra-uterine Fœtuses and the Production of Monsters; with Remarks on the Cases mentioned by *Licetus*, &c.

The Term of a Woman's going with Child.

LECTURE

L E C T U R E VIII.

Of the Complaints which follow Conception; with their various Causes, and palliative Method of Cure, viz.

The *Sign of Conception*,---how distinguished from an Obstruction of the Catamenia, the encysted Dropsy, or other equivocal Marks of Pregnancy.

Nausea, Vomiting, and Longing for unnatural Substances.

Of the Hæmorrhoids, Costiveness, Anasarcaous Swelling of the Legs, Cough and Difficulty of Breathing; and also of the several other Disorders which arise from the Distention of the Uterus and Compression of the Viscera, in the last Months of Pregnancy.

The Treatment and Cure of the Gonorrhæa Virulenta and Lues Venerea, during Pregnancy.

Of Abortion from a Fault of the Mother's Constitution;---the Diseases of the Fœtus, or preternatural Conformation of the Uterus;--from the inordinate Passions of the Mind;--external Violence, or any Cause which occasions a Separation of the Placenta from the Womb.

Abortion,--most frequent in the three first Months of Gestation;--and why.

Of the Remedies most effectual in preventing or relieving the Symptoms of Abortion.

---Obstruction of Urine, at the latter End of Pregnancy.

Rules and Cautions for the Conduct and Regimen of Women during the several stages of Pregnancy.

LECTURE

L E C T U R E IX.

Of the Fœtus.

Of the Situation of the Fœtus in Utero.

Of the *Placenta* and its Membranes; and of the Quantity, Quality and Use of the *Liquor Amnii*, or contained Waters.

The *Funis Umbilicalis* or Navel-String, and the Course of its Vessels traced to their Origin, with their several Connexions and Dependencies, respecting the Mother and Child.

Of the *Nutrition* and *Circulation* of the Blood in the Fœtus, and of the Parts peculiar to it, viz. *Foramen Ovale*, *Canalis arteriosus* and *Ductus Venosus*, &c.

Of the *Allantois* and *Urachus*.

Difference between the Fœtus and Adult, and of the Change produced in the first by the Effect of *Respiration*.

The most effectual Methods of recovering Children, when born *apparently dead*.

Experiment to discover, whether the Infant was *still-born* or destroyed after the Birth; with necessary Cautions in Reports to a *Jury*, or in Cases of Evidence against the accused.

* * The several Parts peculiar to the Fœtus, as they appear in Nature, will be demonstrated by *Anatomical Preparations*.

L E C T U R E X.

The Signs which precede or accompany true Labour.

Of the Nature, Cause and Effects of *Labour Pains*, and of the expulsive Force of the Uterus in its gravid State.

The *Method of Touching* in the first Months of Pregnancy, and at the time of Labour; with the Information thence arising, viz. Whether the Woman is with Child or not; and whether in danger of Miscarriage; also what
D Changes

Changes of the Os Uteri indicate Labour, and distinguish the *true Pains* from those which are *spurious*; ---how to promote the one and relieve the other.

The great Advantage of being thoroughly conversant in the *Art of Touching*, and of truly distinguishing the presenting Parts; with Cautions and Remarks in doubtful Cases.

Of the gradual Dilatation of the Os Uteri, by the Protrusion of the Membranes, or Pressure of the Child's Head.

Of the too early Rupture of the Membranes and Discharge of the Waters.

---The preternatural Strength or Rigidity of the Membranes, and how the Progress of Labour may be retarded in such Cases; with the Methods to remedy these Inconveniencies.

The Signs of a *dead Child*.

The bad Consequence of hastening Labour unseasonably in natural Cases, and the Danger of Delays or of giving *stimulating Medicines*, where the Child presents in a wrong Position.

L E C T U R E XI.

The Division of Labours, viz. *Natural*, *Difficult*, and *Preternatural*.

Of the Position most conducive to the speedy Delivery of the Woman, in the several Kinds of Labour; and the Methods practised in different Countries on that Occasion.

* * * A natural Labour artificially represented on the *Apparatus*, (in a Manner not hitherto effected) distinctly shewing the gradual Dilatation of the

the Os Uteri and Protrusion of the *Membranes*, with their alternate *Distention* and *Relaxation*, as the Pains come on and go off.

The Rupture of the Membranes and Evacuation of the Waters exactly imitated.

An *artificial Demonstration of the Womb's progressive Contraction* as the Child advances in the Birth.

The Manner how the Child's Head presents to the Birth in natural Cases, ---the Turns it makes in passing through the Pelvis, and likewise of *guarding the Perinæum* from Laceration.

Ould's Observation, respecting the Position of the Head in natural Cases.

The Force of Pressure on the Infant's Head exemplified by an *artificial Fœtus*, so constructed as to allow of the same Motion in the Bones of the Cranium as in that of the real Child.

Of Tying and Cutting the Funis, and *extracting the Placenta*; with Remarks on the Conduct of Animals in the Division of the Funis; and likewise on the *Orbicularis Muscle* in Fundo Uteri, as described by *Ruyfch.*

The Method of discovering whether there is a second Child or not.

L E C T U R E XII.

Of *Difficult Labours*, where extraordinary Assistance is required.

The various Causes of difficult or laborious Cases; particularly, the Weakness of the Patient and Absence of her Pains; ---Anxiety of Mind, Floodings,
or

or other profuse Evacuations ;---A narrow or distorted Pelvis,---Rigidity or preternatural Constriction of the Passages,---Induration of the Os Uteri, or wrong Position of the Child's Head ;---its being too large, over ossified, or dropfical.

General Rules how to assist in the various Kinds of Laborious Cases.

Daventer's Sentiments on the Obliquities of the Womb considered.

The Method of Practice when the Birth is retarded by the twisting of the Funis round the Child's Neck.

Of the Use and Abuse of *Instruments* in general ; with a comparative View of their several Advantages and Defects, resulting from their Mechanical Structure, Action and Manner of Application.

Of *Palfyn's* and *Levret's* long Forceps, and also of those recommended by *Smellie, &c.*

Of the Vectis or Lever invented and used by *Roonbuijs*.

* * * The Description and Use of the Author's NEW FORCEPS, with three Blades, in which the mechanical Powers of the *Forceps* and *Lever* are combined.

Lately was published, Price One Shilling,

A VINDICATION of the *Forceps*, described and recommended by Dr. Leake ; in which the illiberal and injudicious Remarks on that Subject, signed *Thomas Denman*, are examined and refuted.

By a late PUPIL of Dr. LEAKE'S.

Printed for R. Baldwin, in Pater-noster-Row, London.

LECTURE

L E C T U R E XIII.

Of the Vertex	} presenting.
---- Fontanelle	
---- Face	
---- Ear	

* * A difficult Labour represented, by an *Artificial Woman and Child*, shewing the Method of applying the Forceps, and other Kinds of Instruments, in the several Positions of the Child's Head.

Levret's Method of Practice when the Face is to the Pubes.

The Method of discovering by the Touch the Narrowness of the Pelvis, or extraordinary Bulk of the Child's Head.

Practical Cautions in the Application of the Forceps, and Extraction of the Head.

Cases where the Forceps cannot be applied with equal Success, altho' the Head presents.

Of the particular Cases which require Instruments; with the Degrees of Danger and Difficulty attending each; and at what time their Application becomes absolutely necessary for the Preservation of the Mother.

Crotchets and Perforators,---in what Cases their Application condemned by *Crantz* of Vienna. *Rædererus*, Professor of Midwifery at Gottingen,---censured by the above author for inculcating their frequent Use.

Of the Symptoms which denote immediate Danger.

Of the *Terebra Occulta*, Long Scissars and Scalpel Ring; with the Manner of opening the Child's Head, when too large to pass, and the Life of the Mother is in Danger;---also how to extract it safely by the Forceps, Crotchet or Tire-Tête of *Mauriceau*.

L E C T U R E XIV.

Of *preternatural Labours*, where the Child is to be turned and brought by the Feet.

The Method of turning the Child.

Mechanical Knowledge applied to the Operation of Turning the Child, ---how useful.

The Use of the Noose, and Manner of fixing it.

The dangerous Consequence of too much Violence or injudicious Assistance in the above Cases.

Of the *ruptured Womb*.

Practical Rules and Cautions in the various Kinds of preternatural Cases, where the Child is to be turned.

Remarks on the Insufficiency and Impropriety of a *Glass Uterus*, in demonstrating the Manner how the Child is to be turned, in Twin Cases, or otherwise.

* * * The several Kinds of *preternatural Labours* will be artificially represented on Machinery.

L E C T U R E XV.

The Method of delivering when the Feet, Knees or Breech present.

How to assist where the Child presents with the Breech, and cannot safely be turned and brought by the Feet.

Of

Of the Child laying across the Uterus, and presenting with its Back, Belly, or Sides.

Of the *Placenta* presenting loose, or adhering to the Os Uteri; and how to act in the above Cases for the Preservation of the Mother.

L E C T U R E XVI.

Of the *Funis Umbilicalis* presenting before the Child's Head, and the Danger of its Compression in the Passage.

The Method of delivering where the Arm or Shoulder present, artificially demonstrated by the *Apparatus*.

Of the transverse Position of the Arms between the Hind-head and Pubes, where the Child is brought Footling.

Of the safest and most expeditious Methods of *extracting the Head* when detained by the Narrowness of the Pelvis; and of the Danger of Delays or much Violence on that Occasion.

The Manner of extracting the Child's Head when separated from the Body and left in Utero; with the Use of *Amand's* Net, the *Terebra Occulta*, *Tire-Tête* or Forceps.

L E C T U R E XVII.

Of the Delivery of *Twins* or a Plurality of Children, and the Extraction of their *Placentæ*; with Remarks on cutting and tying the *Funis* of the first-born Infant.

Of the *Birth of Monsters*, and Extraction of false Conceptions, Moles or Polypose Tumours of the Uterus.

Of the *Cæsarian Operation*; with Observations and Remarks on the Cases mentioned by *Roussétus* and others.

LECTURE

L E C T U R E XVIII.

Of *Uterine Hæmorrhages*, *Convulsions*, and *acute Fevers* in the State of Pregnancy.

Of *Floodings* before Delivery, from external Violence,---Fevers,---the Passions of the Mind, or any Cause that will preternaturally encrease the Momentum of the Blood.

Of *Floodings* after Delivery---from the violent Extraction of the Placenta, the Distention of the Womb by a second Child, or the Want of its due Contraction, from a general Weakness of the Solids.

Convulsions;---and *acute Fevers*, their various Causes and medical Treatment.

Practical Commentaries on such of the Aphorisms of *Hippocrates*, *Mauriceau*, &c. as relate to the Diseases most fatal to Women.

L E C T U R E XIX.

The Treatment of Women after Delivery;---of the Regimen then necessary, and Means most conducive to their Recovery.

Of the Maladies sometimes consequent of Delivery, viz. After-pains, Inflammation, Contusion, or Rupture of the Uterus.

Laceration of the Bladder or Perinæum;---also of the Medicines and Applications necessary in the Intention of Cure.

Obstruction or Incontinence of Urine, and the *Method of passing the Catheter*.

Inversion of the Womb, and Prolapsion of the Rectum.

Of the Lochia, when obstructed, or redundant in Quantity; and of the Effects of *Opiates* and other Medicines in the above Cases.

LECTURE

L E C T U R E XX.

* * Animadversions on the Nature and Cause of the acute, epidemical Fever, peculiar to Women after Delivery, commonly called the *Child-bed Fever*; ---with *Clinical Observations* and Remarks towards the most effectual Methods of its cure.

Of the Milk Fever, and Inflammation or Abscess of the Breasts.

Topical Applications for repelling the Milk; pernicious, and why.

Of the Miliary Eruption, Diarrhæa, or other Evacuations supervening the Milk Fever or Obstruction of the Lochia.

The *Colostrum*, or first Milk; ---its Qualities and Effects on the sucking Infant.

Of the Nature and Secretion of the Milk, and how rendered medicinal to the Infant.

The Evacuations necessary at the End of the Month.

L E C T U R E XXI.

The Treatment and Regimen of new-born Infants.

Of the Disorders in general attending the *first State of Infancy*, and the most approved Methods of Cure.

Of Fractures and Dislocations, and of a Species of the *Hydrocele* peculiar to new-born Infants.

Of the { Mould-shot Head,
Hydrocephalus, and
Spina Bifida.
Hare Lip, ---
Confinement of the Tongue, and
Obstruction of the natural Passages.

F

Of

Of the { Hernia Congenita,
 { Icterus Infantum,
 { Dentition, and
 { Dyfentery.

Of the { Tinea,
 { Aphthæ, and
 { Cruſta Lactea.

L E C T U R E XXII.

Of the acute and chronical Diseases, in general, incident to the *second State of Infancy* ;---their Pathology and Method of Cure.

Of the { Small-pox, and the Artificial Method of communicating that
 { Disease by Inoculation.
 { Measles,
 { Tuffis Convulſiva, and
 { Epilepfia Infantum.

Of the { Rickets,
 { Atrophia, and
 { Disorders arising from Worms.
 { Scrophula.
 { Lues Venerea, and other hereditary Diseases.

Practical Cautions respecting the indiscriminate Use of *Bleeding*, *Blifters*, and *Opiates*, in the Diseases of Children.

Directions for the Choice of a *Wet-Nurse*,---the Indications to be taken from her Habit of Body and the Quality of her Milk ; with Rules for the Regulation of her Diet in Disorders incident to the Child.

T H E E N D.

T H E
DESCRIPTION and USE
O F A
NEW FORCEPS:

By JOHN LEAKE, M. D.

THE *Forceps* used in MIDWIFERY may be considered as an Instrument consisting of two Levers, which act in contrary Directions from one common Centre or Fulcrum, where their Blades unite and are sustained by each other; consequently, their Power on the Body to be moved will be in Proportion to the Length of their *Levers* or Handles.

H. Crantz, Professor of Midwifery at *Vienna*, and *Levret* of *Paris*, both observe, that when the Child's Head is wedged within the Bones of the Pelvis, (*capite incuneato*) it can scarcely ever be extracted by the *common Forceps* recommended by *Smellie*, because of their Shortness; and as their Blades are *only curved in one Direction*, whenever it happens that the Hind-head is forced over the Symphysis of the Pubes, it cannot be got hold of within the Curve of the Blades, which being only applied along the Ears in a straight Direction, are therefore apt to slip downwards over the Face, and to foil the Operator in the Extraction of the Head: This will the rather happen, because they are made *taper towards the Points*, which will diminish their Contact on the Head, and prevent them from taking a firm Hold;—*so that they are the least serviceable in those very Cases where they are most wanted*,—that is, where the Pelvis is narrow; for it must be allowed, of all Difficulties, that which happens from the above Cause, is by far the most insurmountable Obstacle to the Birth, since it can only be overcome by very strong Pains, which compress the Head and force it to conform to the bony Passage.

The *short Forceps* may indeed be effectually applied when the Child's Head is low in the Pelvis; but where that is the Case, artificial Assistance is seldom necessary, the *principal Difficulty being then over*; and should any still remain, it will now be removed by the Concurrence of two Causes, viz. the inferior Parts of the Pelvis will gradually dilate and give Way to the Pressure of the Head, which, at the same Time, will be squeezed into a longitudinal Form, and therefore its transverse Diameter, in respect to the Passage, will become considerably less and less; both which Circumstances have a manifest Tendency to facilitate the Birth.

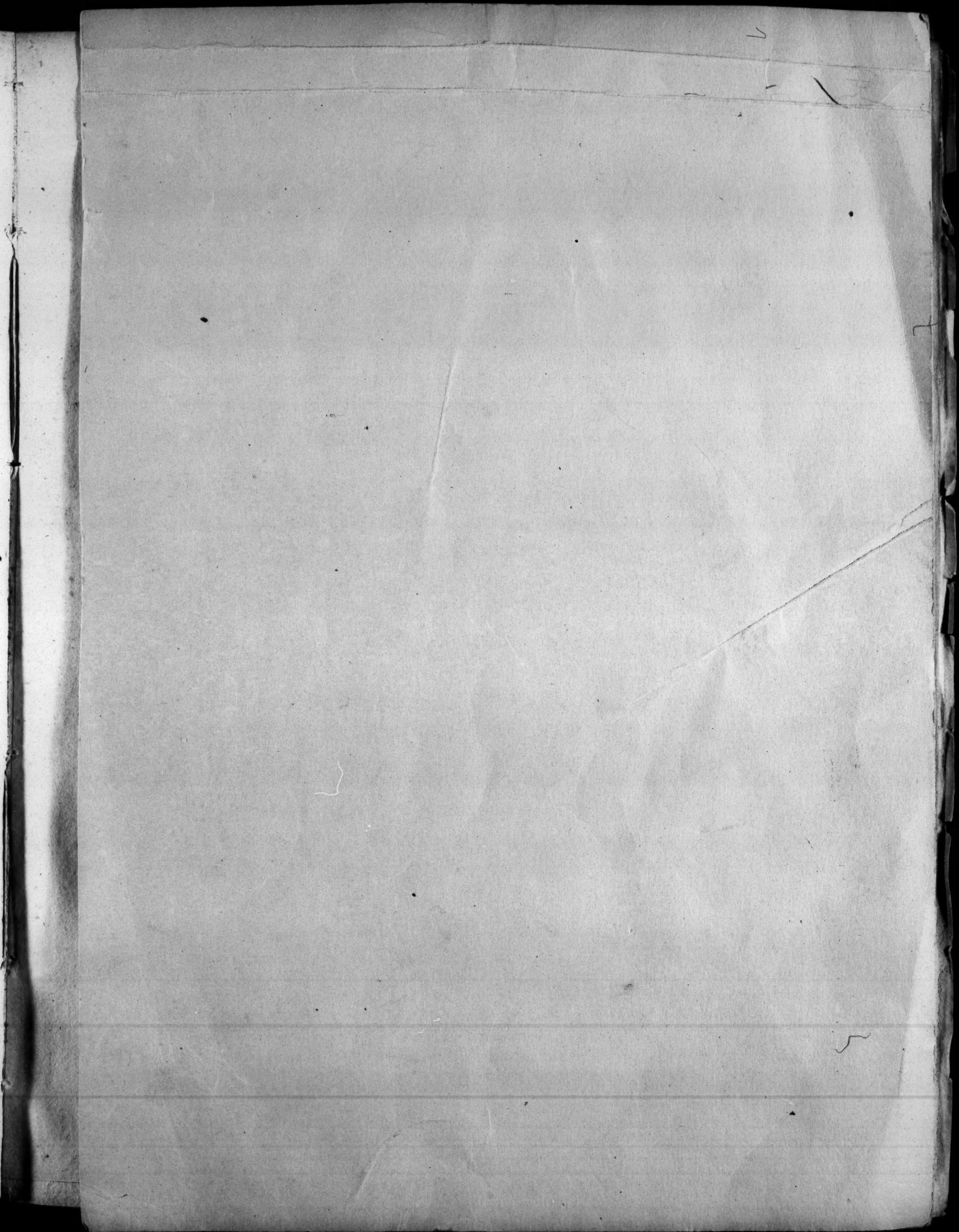
I know that the Application of the Forceps is objected to by some, till after the Head has got below the Brim of the Pelvis, on the Supposition that the Force applied to bring it down, would prove injurious to the Mother.—But will not the *violent and long continued Compression of the soft Parts*, viz. the *Vagina* and *Neck of the Bladder*, &c. when squeezed between the Head and Bones of the Pelvis, as two solid Bodies, be much more liable to endanger the Patient?—Since Instances may be found where
a *Mor*

a *Mortification* has been the Consequence, and where the Child, which always suffers in Proportion, was also *born dead*.

In Cases, therefore, extremely laborious, when the *Head is large*,—the *Pelvis narrow*, or both;—where the Patient's Strength is exhausted by a *Flooding*,—where she is suddenly attacked with *Convulsions*, *Faintings*, or other alarming Symptoms, and consequently, where the *labour Pains are insufficient* to bring forth the Child; the *long double curved Forceps*, hereafter described, may be used with great Safety and Advantage, either *with or without the Lever or third Blade*, as Occasion may require.—Every one who has had much Experience knows, that it is often improper, as well as difficult and dangerous to turn the Child, and sometimes *impracticable* without bursting the Uterus, or applying so much Violence as might be fatal to the Mother; and to open the Head of a *living Infant*, before the *long Forceps* and every other other Expedient had been tried in vain, would surely be deemed rash and unnatural Practice.

When the Fore-head presents to the Os Sacrum, and the Hind-head to the Pubes, the long Axis of the Head intersects the short Axis of the Pelvis, and therefore, these Parts may be considered as two Ellipses crossing each other;—a Position of the Head very unfavourable to the Birth of the Child; here the Blades of the Forceps are to be applied along the Ears, and we are directed to turn the Face to one Side, so that there may be a perfect Coincidence between the Shape of the Head and the Cavity of the Pelvis: but this cannot always be done without much Violence; besides, when it is wedged within the Brim, we cannot always be certain of its exact Position, and therefore, should it happen to be turned the wrong Way, the Difficulty will be increased; consequently, there will often be a Necessity of bringing it along as it first presented.—Whenever this is the Case, a very capital Inconvenience, even in the long double-curved Forceps, will occur; for when they are thus applied on the Sides of the Head, the more it is there compressed by the Action of the Blades, the more will the *Hind-head be forced over the Pubes*, and the *Fore-head against the Sacrum*, which will still add to the Difficulty, and consequently it cannot be extracted in this Manner, without great Violence both to the Mother and Child:—This Circumstance has happened to me in Practice several Times, particularly in two laborious Cases, where the repeated Application of the Blades at the Sides *proved ineffectual*; and dangerous Symptoms appearing, I was afraid of further Delay, and therefore, (the Patient being placed on her Side) I introduced them at the Sacrum and Pubes, that is, on the *Face and Occiput*, and *extracted the Head with Ease at the first Effort*.

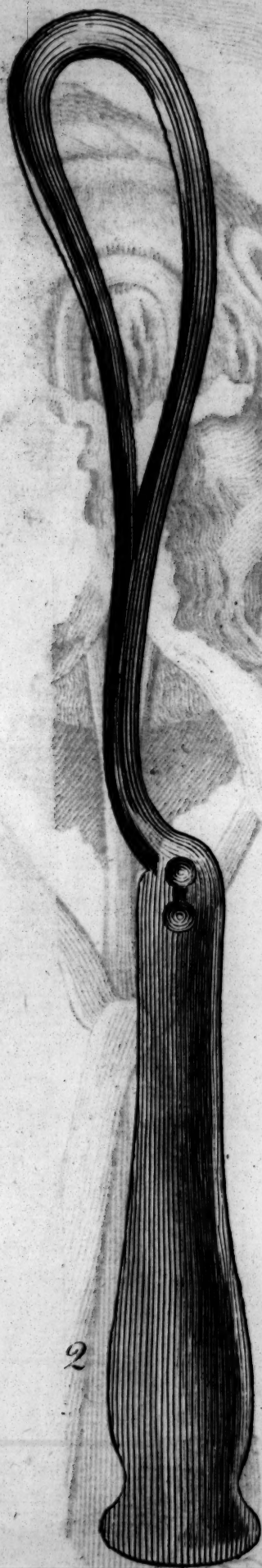
As this Success was plainly owing to the Compression of the longest Part of the Head, it first suggested to me the Hint of applying a Pair of *Forceps with three Blades*, one of which may be occasionally used as a *Lever*, which will act on the same Principle as that of *Roonhuijsse*, and by Means of which, he is said to have practised with so much Reputation and Success in Holland, that *De Vischer* and *Van de Paol*, (two Physicians of Amsterdam) purchased it as a Secret, for a considerable Sum of Money, and afterwards published it for the Good of Mankind:—'Tis only a *simple Lever*, made of tempered Steel, which, in laborious Cases, is directed to be passed up between the Pubes and the Hind-head, in order to bring down



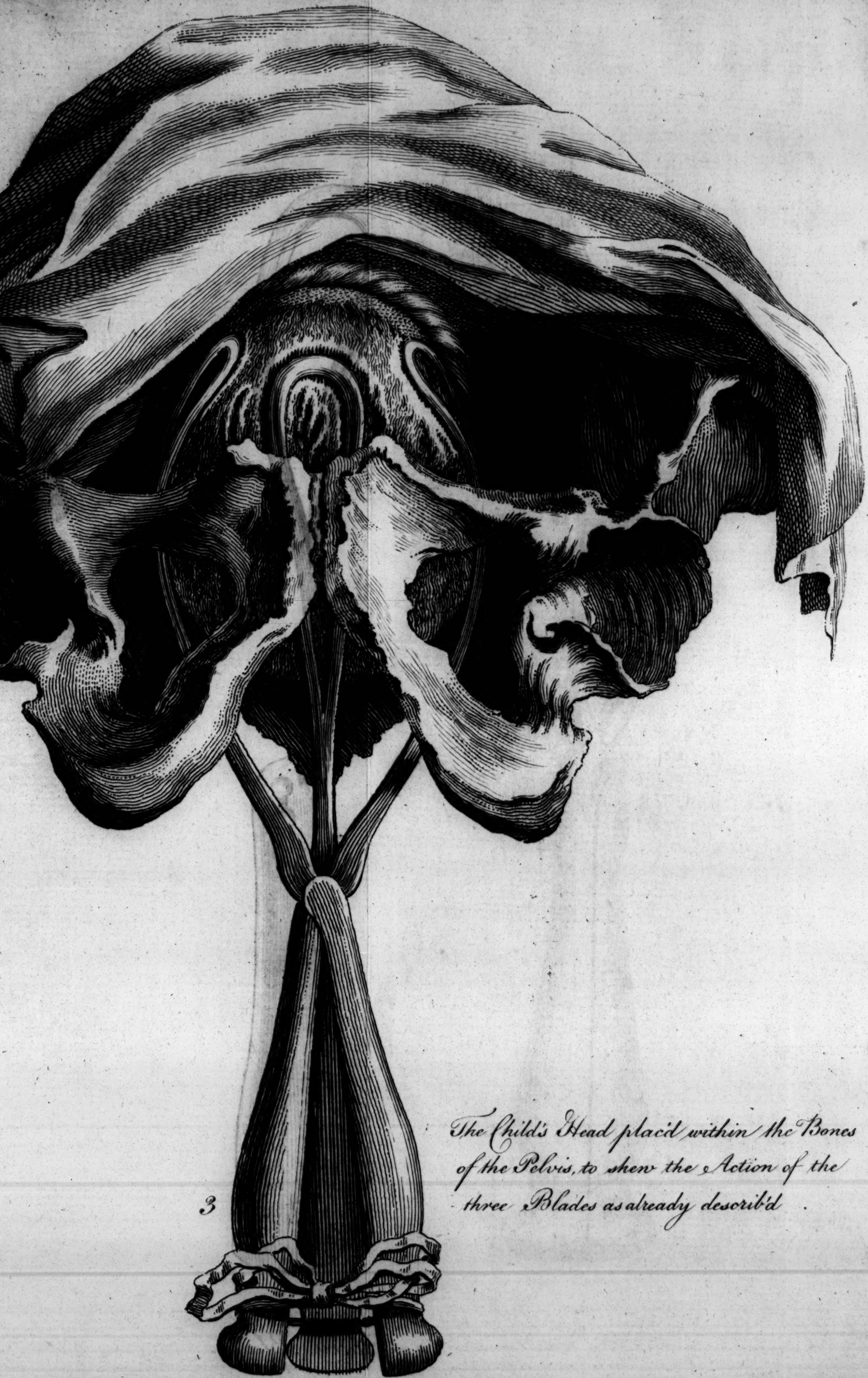


*The Blades of the
Forceps join'd*

C. A. Leuwardt del.

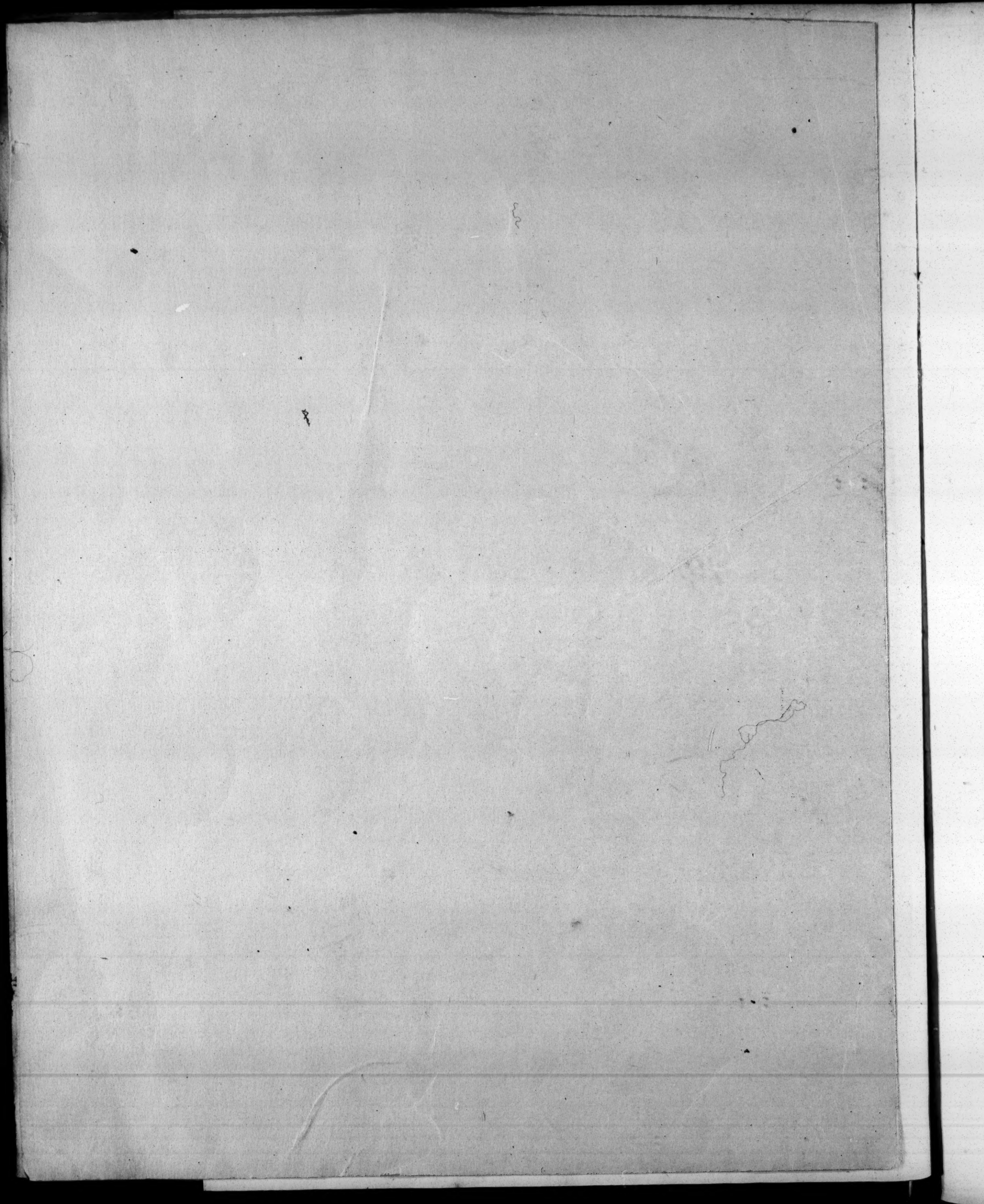


*The Lever or
third Blade*



3

*The Child's Head plac'd within the Bones
of the Pelvis, to shew the Action of the
three Blades as already describ'd*



down the last below the Brim of the Pelvis;—this it will often effectually do, and is an Instrument of considerable Use, particularly where the Difficulty arises from a large Head or narrow Pelvis; but notwithstanding its seeming Simplicity, it may be attended with the utmost Danger; for as the Symphysis of the Pubes is the Centre from which it acts, and the Point upon which the whole Stress is laid, whenever much Force is applied to bring down the Head, (Action and Reaction being the same) the *Vagina*, *Neck of the Bladder*, and *nervous Parts*, may be so violently bruised, as to occasion a *Mortification*, or even the very Symphysis of the Pubes may happen to give way.

To remedy this Inconvenience, which is the principal Objection to the *Lever*, I have, for some Years past, in my COURSE OF LECTURES ON Midwifery, recommended an *Instrument consisting of three Blades*, being, in Fact nothing more than a Pair of long Forceps with a double Curve, and the Addition of a *Lever*, which may be applied without the least Danger of hurting the Mother; for here the *Fulcrum* of the *Lever* is removed from the Pubes to the Junction of the two Blades, which not only act as a Pair of Forceps, but, at the same Time afford a firm resting Point for the third Blade, by Means of a small Pivot, or central Pin, placed on the under Side of one of their Blades.

After the Introduction of the Blades of these Forceps at the Sides of the Child's Head, this Lever is to be passed up between the Occiput and Pubes; and as the Pelvis there forms a Kind of Arch, and is also extremely shallow, by inclining the Handle low towards the Perinæum, it may be introduced without the least Degree of Violence.

This additional Blade or Lever applied immediately to the resisting Point or Occiput, where it rests at the Pubes, will not only effectually shorten the Head, and detach it from the Place of its Obstruction, but will also prevent the Forceps from slipping; for if they tend down towards the Face, the *Lever*, which is fixed at the Hind-head, and sustained at the Junction of the Blades, must be drawn down with them, and consequently the Head also will still be the more brought into the Centre of the Pelvis, and therefore the more easily extracted; which may be better understood by referring to the *third Figure in the Copper Plate*.

The Blades of these Forceps are broad at their Extremities where they grasp the Head, and being reflected towards the Pubes with a curvilinear Sweep, they not only correspond more aptly with the Direction of the Passage than the common short ones; but also take a much more firm and extensive Hold of the Hind-head, where it rests at the Brim. Besides, as their compressive Force on the Head is more uniform, there will be less Danger of lacerating the Perinaeum: They will also be less liable to hurt the Patient, as they lock at a greater Distance from the Os Externum, neither will they keep this Part so violently on the Stretch; for their Blades near the Junction, are much closer together than in the common Forceps;—the Distance in the first being only two Inches from Blades to Blade, but in the last, three Inches and a Quarter.

The Curve of the Blades from their Junction to their Extremities is in Length seven Inches and an Half, and from thence to the Extremities of the Handles, five Inches and an Half, in the Whole thirteen Inches; so that independent

independent of the Lever, and admitting they are used alone, considering *their Length and the Effect of their double Curve*, they will in all Cases be found preferable to the common streight Forceps; or to speak more properly, to those where the Extremities of the Blades are in a streight Line with the Point where they lock.

Should it be supposed, that the Length of their Handles will give them a dangerous Power of Action, I think the Objection is easily answered, since this would not be the Fault of the *Instrument* but of the *Operator*; for no one who is prudent and skilful will ever apply a greater Degree of Force, than the natural Structure of the Parts will bear.

Of late the *common Forceps* have been made with a Kind of *double Curve*, but without any real Advantage, such Forceps being much too short to reach the Head *above the Brim of the Pelvis*, and where this additional Curve can only be proper or necessary; for when it is low, the short streight Forceps in common Use, as already observed, will do as well as any.

The Lever is about twelve Inches and an Half in Length, and in its Centre, which is made with a PROJECTING ANGLE, to give it a greater Power of Action, are placed two small Depressions, for the Reception of the *Pivot* on the lower Blade of the Forceps, with a superficial Groove between these Depressions, so as to allow it to be passed higher or lower as Occasion may require.

In short, *these two mechanical Powers of the Forceps and Lever thus combined, will mutually assist each other*;—For the Lever will not only *prevent the Forceps from slipping*, but will also *shorten the Head*, and bring it down below the Arch of the Pubes in to the Centre of the Pelvis, by which Means it may be the more easily extracted; on the other Hand, the Forceps will afford a resting Point to the Lever, from which it may effectually act *without any Sort of Danger to the Patient*, so that we have the Advantages of both Instruments without the Defects of either.

To those who have seen the *Instrument*, and the Manner of its Application, this Description would perhaps have been sufficiently plain and obvious; but least it should be imperfectly understood by others, I have been at the Expence of a *Drawing and Copper-plate Print*, to represent it more clearly, being desirous of making it useful to the utmost of my Power.

P O S T S C R I P T.

Several of these *Forceps* having been made very unlike the *original Pair*, from whence the *annexed Print* is taken; Gentlemen of the Profession are desired to direct the Instrument-maker to be particularly careful on that Account, and order them to be made of *tempered Steel* instead of *Iron case-hardened*, which will always bend and defeat the Purpose of their Application.—The *Angle of the Lever*, where the two Holes are made, is *not sufficiently projecting*; these Holes are also too deep, and the *Pivot* at the Junction of the Blades is generally *too short*, so as to prevent the Lever from having a sufficient Power of Action.—The Forceps are only to be covered with Leather as high as their Fork.

London, Craven Street, Strand,
25th April, 1775.

*EXTRACT of a LETTER from Mons. D. H. Gallan-
dat, to Dr. Leake, relative to his New Forceps.*

Monsieur

*Monsieur JOHN LEAKE, Membre du Collège Royal des Medecins de
Londres, &c. à Londres.*

JE me flatte que vous excuserez l'importunité d'une personne qui, ainsi que vous Monsieur, consacre son tems et ses forces à l'exercice de fonctions dans lesquelles il ne s'agit pas moins que de veiller à la conservation de nos semblables. Oüi, Monsieur, j'ose m'assurer que vous ne prendrez pas mon hardiesse de mauvaise part, puisque c'est la reputation distinguée dont vous jouissez a si juste titre qui y donne occasion. Voici de quoi il s'agit : j'ai lu avec un singulier plaisir le discours préliminaire que vous avez prononcé le 4. d'Octobre dernier, a l'ouverture de vôtre Cours d'Accouchemens, à la fin du quel j'ai vu avec la plus grande satisfaction la description & la figure d'un nouveau Forceps a trois branches, de votre invention ; et comme il me paroît que cette troisieme branche peut être fort utile dans certain cas, j'ai d'abord pris la resolution de me procurer cet Instrument, tant pour en faire l'essai que pour le montrer dans mes cours publics : mais attendu l'ignorance de nos couteliers, et la difficulté qu'il y a pour leur faire suivre exactement le dessein, j'ai cru que le plus court et le plus sur seroit de m'adresser directement à l'Auteur. Je vous prie donc, Monsieur, d'avoir la bonté de faire faire le dit Forceps selon la description que vous en avez donnée, & de me le faire parvenir par celui qui aura l'honneur de vous remettre cette lettre & qui aura soin de payer l'instrument. Vous m'obligerez infiniment et vous me rendrez un service qui méritera toute ma reconnaissance.

Ayant tout lieu de croire que vous entendez parfaitement bien le François, je me flatte, Monsieur, que vous ne prendrez pas de mauvaise part si je prends la liberté de vous écrire en cette langue : après le Hollandois c'est celle qui m'est la plus familiere.

Je

Je vous prie d'agréer mes offres de service dans ce pays ci où je voudrois être en état de vous prouver les sentimens de la parfaite estime et de la considération distinguée avec laquelle j'ai l'honneur d'être.

Monfieur,

Votre très humble & très obeissant Serviteur,

DAVID HENRY GALLANDAT,

*Flessingue en Zélande
ce 10 Aout 1774.*

*Membre de l'acad. imp. des curieux de la nature, et
trésorier de la société Zelandoise des sciences; demon-
strateur d'anatomie, de chirurgie, & de l'art des
accouchemens, à Flessingue.*

C'est mon adresse, en cas que vous ayez la bonté de m'honorer d'une réponse, ce qui me feroit un sensible plaisir.

